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10/776,505	02/12/2004	Theodore Rappaport	WV00015CP1	3676

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MOTOROLA, INC  
INTELLECTUAL PROPERTY SECTION  
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EXAMINER
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ROSE, HELENE ROBERTA

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/776,505	<b>Applicant(s)</b> RAPPAPORT ET AL.	
	<b>Examiner</b> Helene Rose	<b>Art Unit</b> 2163	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-66 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/14/04</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

#### Detailed Action

1. In response to communications filed on 2/23/2007, Claims 13, 17-19, 23-27, 30-31, 44-47, 50, 55-58, and 63-66 have been amended. No claims have been added or cancelled. Therefore, Claims 13-66 is pending.

#### Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 2/14/2004, accordingly, the US Patent Documents cited on pages 1-11 and pages 16-17 along with web pages cited on page 14, of the information disclosure statement is being considered by the examiner.

However, the non-patent literature documents cited on pages 12-13 and page 15, has not been considered by examiner, because it fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed.

It has been placed in the application file, but the information referred to therein has not been considered.

#### Claim Objections

3. In view of the objection made to Claims 13, 18, 23-27, 30-31, 44-47, 50, 55-58, and 63-66, being rejected under 112, second paragraph, wherein the following Claims 13, 18, 23-27, 31, 44-47, 50, 55-58, and 63-66, recited the following limitation "or", this limitation renders the claim vague and indefinite, because the term "or" is considered to be alternative language.

Examiner withdraws pending rejection based on applicant amendment to correct the following objection.

Claims Rejections – 35 U.S.C – 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13-15, 19, 21-25, 27-32, 34, 37, 39-45, 47-54, 59 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause (US Patent No. 5,625,827, Date of Patent: April 29, 1997, hereinafter Krause) in view of Kozah et al (US Patent No. 5,337,149/Date of Patent: August 9, 1994, hereinafter Kozah) and further in view of Awe et al (US Patent No. 6,509,906, Filing Date of Patent: April 29, 1999, hereinafter Awe).

Claim 13

Regarding Claim 13 discloses a computer implemented method for creating, formatting or editing a database model of a physical environment, comprising:

a) using a computer file for editing one or more objects defining a modeled environment in which an in-building or campus communications network is or will be deployed having at least one of floors, walls, partitions, buildings, building complexes or compounds, terrain, foliage, or other sites or obstructions (column 2, lines 11-13, wherein manipulating a plurality of document files including construction building drawings; column 5, lines 30-36, wherein the system includes project selection means for storing a project or job with test information and selected blueprints or drawings, wherein a user may select a limited number of specific blueprints to be used in and associated with a

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project such that when selecting a project, only certain files will be used; column 1, lines 13-17, wherein such blueprints or working drawings include a general or primary plan drawing with supporting pages of detailed, secondary drawings supplementing and referencing the primary building drawings, i.e., floors plans, sectional, etc., along with supporting textual specifications; and column 15, lines 9-12, wherein the EDIT take off name button allows the take off item to be edited, through any changes are not reflected in the checklist item, wherein this is interpreted to be equivalent to "using a computer file for editing one or more objects defining a modeled environment in which an in-building or campus communications network is or will be deployed having at least one of: floors, walls, partitions, buildings, building complexes or compounds, terrain, foliage, or other sites or obstructions" Krause);

Krause does not teach (b) verifying, using a computer, the sufficiency of said one or more objects to ensure a useful definition of said modeled environment and notifying a user of results of said verification of sufficiency".

Kozah does teach b) verifying, using a computer, the sufficiency of said one or more objects to ensure a useful definition of said modeled environment and notifying a user of results of said verification of sufficiency (column 1, lines 12-18, wherein computer aided drafting, i.e. CAD, program and graphically display the data as it is acquired to guide the input process and verify the results; column 5, lines 11-14, wherein the computer has sufficient capability to perform computations required by this invention and supports the computer aided drafting program; column 8, lines 30-31, wherein further check on validity of this acquired data, Kozah);

It would have been obvious to one of the ordinary skill in the art at the time of the invention to incorporate Kozah teachings into Krause system. A skilled artisan would have been motivated to combine as suggest by Kozah [column 3, lines 5-8] for providing and presenting a three dimensional model of an object that's to be displayed based on the accuracy of the input data to the CAD program.

Krause in view of Kozah does not explicitly disclose the step of:

(c) generating a set of formatted data based at least in part on said verification of sufficiency for use in at least one of:

a communication engineering and network management application; Although, Kozah teaches storing the object/position information in the CAD database in the CAD application (column 9, lines 13-31, Kozah).

(d) rendering a three-dimensional view of said modeled environment (see abstract, wherein creating a computer model of a large three dimensional object as data is acquired, Kozah).

Awe teaches step (c), generating a set of formatted data based at least in part on said verification of sufficiency for use in at least one of:

a communication engineering and network management application (column 3, lines 18-60, wherein this reads over "data communication devices, e.g., modems, network interfaces, etc, and wherein as data stored in a storage device associated with the CAD program, Awe).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was made to apply the teachings of Awe to Krause in view of Kozah to create a

three dimensional representation of the building data. The motivation to combine would have been that Krause in view of Kozah gathers the information and build the three dimensional module but does not disclose the details of how the measurements are mapped to the primitive objects (column 12, lines 22-34, Krause, column 7, lines 55-65, Kozah, column 1, line 62 and column 2, line 6, Awe) to create a three dimensional view of the building, a deficiency cured by Awe using streams (column 5, line 16 and column 6, line 42) for a custom 3D view.

Claim 14:

Regarding Claim 14, the combination of Krause in view of Kozah and further in view of Awe teaches the step of editing one or more objects in said set of formatted data (column 11, lines 16-22, Kozah and column 5, lines 54-63, Awe).

Claim 15:

Regarding Claim 15 the combination of Krause in view of Kozah and further in view of Awe teaches the step of moving an object in said set of formatted data (column 8, lines 16-19, Kozah).

Claim 19:

Regarding Claim 19, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said step of using computer file for editing includes the step of modifying one or more of electrical properties, physical properties, aesthetic properties, and spatial configurations of one or more objects of said one or more objects (column 1, lines 50-52, wherein physically measure the spatial characteristics of the building and to input the measured data manually into the computer program; column 2, lines 43-47, wherein electronic distance measuring devices range and transit it to a computer for processing into

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digital model of the object; column 3, lines 15-18, wherein electronic distance measurement device, i.e. EDM, Kozah).

Claim 21:

Regarding Claim 21, the combination of Krause in view of Kozah and further in view of Awe teaches wherein notifying performed by said means for verifying and notifying is performed by prompting the user (column 7, lines 61-65, wherein the CAD software prompts the user to measure the point on the element, Kozah) and, when required to provide said useful definition (column 8, lines 20-33, wherein further check on the validity of the acquired data and wherein a user decides whether to measure additional points on the element, Kozah), requires the user to correct any insufficiencies in response to an insufficiency notification (Figure 9, all features and further defined in column 8, lines 45-55, Kozah).

Claim 22:

Regarding Claim 22, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said communications engineering or network management application is selected from the group consisting of one or more of wireless propagation prediction, measurement tools, component placement or layout visualization tools, optimization tools, bill of materials generating tools, and network performance management or prediction tools (column 10, lines 26-40, wherein electing an element or entity type to be measured and once selected, the user performs the step of aligning the measuring axis 34 on the desired point, and next is the step of measuring the coordinates of the desired point in the local reference frame and once the point is measured, the computer communicates the data to the CAD software and the CAD software then performs the step



of calculating the location of the point in the global reference frame and wherein the CAD software next performs the step of displaying the point on the display screen and once displayed, the user determines whether the point was correctly measured and, if needed, then interacts with the computer aided drafting software, wherein this is equivalent to visualization, Kozah).

Claim 23:

Regarding Claim 23, the combination of Krause in view of Kozah and further in view of Awe teaches one of the steps of adding and removing at least one object in said set of formatted data (column 8, lines 25-27 and column 10, lines 46-48, wherein adds the element as measured to the CAD program data base, Kozah).

Claim 24:

Regarding Claim 24, the combination of Krause in view of Kozah and further in view of Awe teaches further comprising one of the steps of specifying and invoking a propagation model for performing predictions of performance (Figures 1 and 2, all features and column 5, lines 19-25, wherein this reads over “streams are a series of objects that are designed to accept graphic primitives from a CAD object and do something specific with those graphics and so forth”, Awe).

Claim 25:

Regarding Claims 25 and 45, the combination of Krause in view of Kozah and further in view of Awe teaches one of the steps of specifying and invoking a listing of communications equipment (column 3, lines 41-50, respectively, Awe).

Claim 27:

Regarding Claim 27, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said step of verifying performs one or more of the following:

- (i) removing unused and un-referenced objects from said one or more objects;
- (ii) removing unnecessary data selected group the group consisting of legends, initials, maps, map layers, text, and extraneous drawing objects;
- (iii) objects have been assigned attenuation factors;
- (iv) objects have been assigned colors;
- (v) objects have been assigned physical or electrical information;
- (vi) intersection of objects with floors, ceilings and other objects have been located;
- (vii) buildings are aligned with terrain;
- (viii) floors of a building are aligned with one another;
- (ix) determining if database has been verified previously';
- (x) determining if database is newly created, altered, modified, amended, edited, previously formatted or not previously formatted;
- (xi) specifying at least one reference point (Figure 7, diagram 7.10, Kozah);
- (xii) scaling one or more objects of said one or more objects (figure 7, all features, Kozah)
- (xiii) scaling a raster image;
- (xiv) adding measurements at site-specific locations (Figure 7, all features, Kozah);
- (xv) creating a legend for the drawing;
- (xvi) creating a boundary around drawing (see abstract, wherein creating a complete model of an object or space without any limitation is equivalent to a boundary, Kozah);

- (xvii) invoking communications equipment listings;
- (xviii) invoking a propagation model for performing predictions of performance; and
- (xix) specifying an air interface standard or operating frequency.

Claim 28:

Regarding Claims 28 and 48, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said generating steps generates an editable database wherein one or more electrical properties, physical properties, aesthetic properties, and spatial configurations of one or more objects within said database can be altered (column 2, lines 62-27, wherein objects can be altered by a user, Awe).

Claim 29:

Regarding Claims 29 and 49, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said means for generating generates set of formatted data in a form transportable to and usable by said communications engineering or network management application (column 3, lines 18-29, wherein a network application is defined, Awe).

Claim 30:

Regarding Claim 30, Krause disclose a computer implemented method and an apparatus, wherein Kozah teaches a computer implemented method and an apparatus for creating, formatting or editing a database model of a physical environment, comprising:  
computer implemented means for editing one or more object files defining a modeled environment in which an in-building or campus communications network is or will be deployed having at least one of:

floors, walls, partitions, buildings, building complexes or compounds, terrain, foliage, and other sites or obstructions (column 2, lines 11-13, wherein manipulating a plurality of document files including construction building drawings; column 5, lines 30-36, wherein the system includes project selection means for storing a project or job with test information and selected blueprints or drawings, wherein a user may select a limited number of specific blueprints to be used in and associated with a project such that when selecting a project, only certain files will be used; column 1, lines 13-17, wherein such blueprints or working drawings include a general or primary plan drawing with supporting pages of detailed, secondary drawings supplementing and referencing the primary building drawings, i.e., floors plans, sectional, etc., along with supporting textual specifications; and column 15, lines 9-12, wherein the EDIT take off name button allows the take off item to be edited, through any changes are not reflected in the checklist item, wherein this is interpreted to be equivalent to “using a computer file for editing one or more objects defining a modeled environment in which an in-building or campus communications network is or will be deployed having at least one of floors, walls, partitions, buildings, building complexes or compounds, terrain, foliage, or other sites or obstructions” Krause);

Krause does not teach “means for verifying, by computer, the sufficiency of said one or more objects to ensure a useful definition of said modeled environment and notifying a user of results of said verification of sufficiency”;

Kozah does teach “means for verifying, by computer, the sufficiency of said one or more objects to ensure a useful definition of said modeled environment and notifying a user of results of said verification of sufficiency” (column 1, lines 12-18, wherein computer aided drafting, i.e. CAD, program and graphically display the data as it is acquired to guide the

input process and verify the results; column 5, lines 11-14, wherein the computer has sufficient capability to perform computations required by this invention and supports the computer aided drafting program; column 8, lines 30-31, wherein further check on validity of this acquired data, Kozah);

It would have been obvious to one of the ordinary skill in the art at the time of the invention to incorporate Kozah teachings into Krause system. A skilled artisan would have been motivated to combine as suggest by Kozah [column 3, lines 5-8] for providing and presenting a three dimensional model of an object that's to be displayed based on the accuracy of the input data to the CAD program.

Krause in view of Kozah does not explicitly disclose the steps of:

“generating a set of formatted data based at least in part on said verification of sufficiency for use in at least one of:

a communication engineering and network management application”;

Although, Kozah teaches storing the object/position information in the CAD database in the CAD application (column 9, lines 13-31, Kozah).

means for rendering a three-dimensional view of said modeled environment (see abstract, wherein creating a computer model of a large three dimensional object as data is acquired, Kozah).

Awe teaches the step “generating a set of formatted data based at least in part on said verification of sufficiency for use in at least one of:

a communication engineering and network management application” (column 3, lines 18-60, wherein this reads over “data communication devices, e.g., modems, network

interfaces, etc, and wherein as data stored in a storage device associated with the CAD program, Awe).

It would have been obvious to one of the ordinary skill in the art at the time of the invention was made to apply the teachings of Awe to Krause in view of Kozah to create a three dimensional representation of the building data. The motivation to combine would have been that Krause in view of Kozah gathers the information and build the three dimensional module but does not disclose the details of how the measurements are mapped to the primitive objects (column 12, lines 22-34, Krause, column 7, lines 55-65, Kozah, column 1, line 62 and column 2, line 6, Awe) to create a three dimensional view of the building, a deficiency cured by Awe using streams (column 5, line 16 and column 6, line 42) for a custom 3D view.

Claim 31:

Regarding Claim 31, the combination of Krause in view of Kozah and further in view of Awe teaches a means for adding and moving at least one object in said set of formatted data (see abstract, wherein measuring device includes a distance measuring device that takes measurements from a stable, moveable location; column 8, lines 16-19, wherein moving slightly the measured point; and column 8, lines 25-27 and column 10, lines 46-48, wherein adds the element as measured to the CAD program data base, Kozah).

Claim 32:

Regarding Claim 32, the combination of Krause in view of Kozah and further in view of Awe teaches a means for moving an object in said set of formatted data (column 8, lines 16-19, Kozah).

Claim 34:

Regarding Claim 34, the combination of Krause in view of Kozah and further in view of Awe teaches a means for editing one or more objects in said set of formatted data (column 11, lines 16-22, Kozah).

Claim 37:

Regarding Claim 37, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said means for editing includes a means for modifying one or more of electrical properties, physical properties, aesthetic properties, and spatial configurations of one or more objects of said one or more objects (column 1, lines 50-52, wherein physically measure the spatial characteristics of the building and to input the measured data manually into the computer program; column 2, lines 43-47, wherein electronic distance measuring devices range and transit it to a computer for processing into digital model of the object; column 3, lines 15-18, wherein electronic distance measurement device, i.e. EDM, Kozah).

Claim 39:

Regarding Claim 39, the combination of Krause in view of Kozah and further in view of Awe teaches wherein notifying performed by said means for verifying and notifying is performed by prompting the user (column 7, lines 61-65, wherein the CAD software prompts the user to measure the point on the element, Kozah) and, when required to provide said useful definition (column 8, lines 20-33, wherein further check on the validity of the acquired data and wherein a user decides whether to measure additional points on the element, Kozah), requires the user to correct any insufficiencies in response to an

insufficiency notification (Figure 9, all features and further defined in column 8, lines 45-55, Kozah).

Claim 40:

Regarding Claim 40, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said communications engineering or network management application is selected from the group consisting of one or more of wireless propagation prediction, measurement tools, component placement or layout visualization tools, optimization tools, bill of materials generating tools, and network performance management or prediction tools (column 10, lines 26-40, wherein electing an element or entity type to be measured and once selected, the user performs the step of aligning the measuring axis 34 on the desired point, and next is the step of measuring the coordinates of the desired point in the local reference frame and once the point is measured, the computer communicates the data to the CAD software and the CAD software then performs the step of calculating the location of the point in the global reference frame and wherein the CAD software next performs the step of displaying the point on the display screen and once displayed, the user determines whether the point was correctly measured and, if needed, then interacts with the computer aided drafting software, wherein this is equivalent to visualization, Kozah).

Claim 41:

Regarding Claim 41, the combination of Krause in view of Kozah and further in view of Awe teaches comprising a means for adding measurements to said set of formatted data generated in said generating step (column 8, lines 25-30, wherein if the answer is no, the



CAD software then adds the elements as measured to the CAD program database, wherein once written to the database, the next step is to display the element, Kozah).

Claim 42:

Regarding Claim 42, the combination of Krause in view of Kozah and further in view of Awe teaches wherein comprising a means for scaling at least one part of said set of formatted data (see abstract, wherein scaling is interpreted to be sizing and drawing to its proper size, Kozah).

Claim 43:

Regarding Claim 43, the combination of Krause in view of Kozah and further in view of Awe teaches wherein comprising a means for scaling at least one part of said set of formatted data (see abstract, wherein scaling is interpreted to be sizing and drawing to its proper size, Kozah).

Claim 44:

Regarding Claim 44, the combination of Krause in view of Kozah and further in view of Awe teaches wherein further comprising means for specifying and invoking a propagation model for performing predictions of performance (Figures 1 and 2, all features and column 5, lines 19-25, Awe).

Claim 45:

Regarding Claim 45, the combination of Krause in view of Kozah and further in view of Awe teaches wherein a means for specifying and invoking a listing of communications equipment (column 3, lines 41-50, Awe).

Claim 47:

Regarding Claim 47, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said means for verifying performs one or more of the following:

- (i) removing unused and un-referenced objects from said one or more objects;
- (ii) removing unnecessary data selected group the group consisting of legends, initials, maps, map layers, text, and extraneous drawing objects;
- (iii) objects have been assigned attenuation factors;
- (iv) objects have been assigned colors;
- (v) objects have been assigned physical or electrical information;
- (vi) intersection of objects with floors, ceilings and other objects have been located;
- (vii) buildings are aligned with terrain;
- (viii) floors of a building are aligned with one another;
- (ix) determining if database has been verified previously';
- (x) determining if database is newly created, altered, modified, amended, edited, previously formatted or not previously formatted;
- (xi) specifying at least one reference point (Figure 7, diagram 7.10, Kozah);
- (xii) scaling one or more objects of said one or more objects (figure 7, all features, Kozah)
- (xiii) scaling a raster image;
- (xiv) adding measurements at site-specific locations (Figure 7, all features, Kozah);
- (xv) creating a legend for the drawing;
- (xvi) creating a boundary around drawing (see abstract, wherein creating a complete model of an object or space without any limitation is equivalent to a boundary, Kozah);

- (xvii) specifying communications equipment listings;
- (xviii) specifying a propagation model for performing predictions of performance; and
- (xix) specifying an air interface standard or operating frequency.

Claim 48:

Regarding Claim 48, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said means for generating generates an editable database wherein one or more electrical properties, physical properties, aesthetic properties, and spatial configurations of one or more objects within said database can be altered (column 2, lines 62-27, wherein objects can be altered by a user, Awe).

Claim 49:

Regarding Claim 49, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said means for generating generates set of formatted data in a form transportable to and usable by said communications engineering or network management application (column 3, lines 18-29, wherein a network application is defined, Awe).

Claims 50:

Regarding Claim 50, the combination of Krause in view of Kozah and further in view of Awe teaches the steps of tracing said **at least one accepted** scanned image and drawing, (column 2, lines 39-47, Kozah) and adding one or more traced objects from said tracing step to said one or more objects defining said modeled environment (Figure 7, diagram 7.13, Kozah).

Claims 51:

Regarding Claim 51, the combination of Krause in view of Kozah and further in view of Awe teaches the steps of reading in one or more files into said computer and determining

the type of file read in said reading step by the contents of said one or more files (columns 7-8, lines 65-67 and line 1, wherein the microcontroller transmits to the computer the range measured by the EDM as well as the pitch and yaw angles measured respectively by the first sensing device and the second sensing device, Kozah).

Claims 52:

Regarding Claim 52, the combination of Krause in view of Kozah and further in view of Awe teaches wherein at least a portion of said generating step occurs prior to said verifying step (column 8, lines 2-10, wherein the CAD software has data locating the measured point in spherical coordinates in the local frame reference, Kozah).

Claims 53:

Regarding Claim 53, the combination of Krause in view of Kozah and further in view of Awe teaches wherein said generating step occurs after said verifying step (column 8, lines 11-32, Kozah).

Claim 54:

Regarding Claim 54, the combination of Krause in view of Kozah and further in view of Awe teaches comprising the step of adding measurements to said set of formatted data generated in said generating step (column 8, lines 25-30, wherein if the answer is no, the CAD software then adds the elements as measured to the CAD program database, wherein once written to the database, the next step is to display the element, Kozah).

Claims 59:

Regarding Claim 59, the combination of Krause in view of Kozah and further in view of Awe teaches means for reading in one or more files into said computer and means for

determining the type of file read by the contents of said one or more files (Figure 6. diagram 608, wherein object types are defined and column 6, lines 58-64, Awe).

Claims 62:

Regarding Claim 62, the combination of Krause in view of Kozah and further in view of Awe teaches means for generating generates said formatted data after said means for verifying verifies the sufficiency of said one or more objects (column 1, lines 12-15, wherein inputting the data to a computer aided drafting program and graphically displaying the data as it is acquired to guide the input process to verify the results, Kozah).

6. Claims 16-18, 20, 26, 33, 35-36, 38, 46, 55-58, 60-61, and 63-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause, in view of Kozah, and further in view of Awe and Ingram et al (US Patent No. 5,091,869, Date of Patent: February 25, 1992).

Claim 16:

Regarding Claim 16, Krause in view of Kozah and further in view of Awe do not teach the steps of modifying one or more objects in said set of formatted data.

On the other hand, Ingram discloses the step of modifying one or more objects in said set of formatted data (column 12, lines 48-49, Ingram).

A skilled artisan would have been motivated to do to increase the accuracy of measurements taken to eliminate deficiencies.

Claim 17:

Regarding Claims 17 and 35, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein step of using a computer file for editing includes the step of removing extraneous drawing objects from said one or more objects

(column 12, lines 21-23, wherein editor will allow the technician to select commands identifier points, i.e. records to be extracted, Ingram).

Claim 18:

Regarding Claims 18 and 36, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein step of using a computer file for editing includes at least one of the steps of accepting a scanned image and accepting a drawing (column 1, lines 16-19, wherein they currently have two options, the "as built's " can be digitized or they can be scanned, Ingram).

Claim 20:

Regarding Claim 20, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein notifying performed by said means for verifying and notifying is performed in an automatic fashion without feedback being provided to the user (column 5, lines 44-48, wherein builds a self checking mechanism and establishes a tie closure, wherein the survey team proceeds through the entire floor in the manner shooting all entities and their traverse points, wherein the self checking mechanism is automatic, Ingram).

Claims 26:

Regarding Claim 26, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein further comprising the steps of:

accepting at least one raster image file representing said physical environment (column 7, lines 41-56, wherein raster image is define to be an image displayed as a series of lines of dots, Ingram); and

scaling said at least one raster image file for incorporation into one of either said using a computer file for editing step and said set of formatted data generated in said generating step (columns 7-8, lines 57-67 and lines 1-16, wherein format used by calculation program, Ingram).

Claim 33:

Regarding Claim 33, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches a means for modifying one or more objects in said set of formatted data (column 12, lines 48-49, Ingram).

Claim 35:

Regarding Claim 35, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein step of using a computer for editing includes the step of removing extraneous drawing objects from said one or more objects (column 12, lines 21-23, wherein editor will allow the technician to select commands identifier points, i.e. records to be extracted, Ingram).

Claim 36:

Regarding Claim 36, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein said computer implemented means for editing includes means for accepting a scanned image or drawing (column 1, lines 16-19, wherein they currently have two options, the "as built" can be digitized or they can be scanned, Ingram).

Claim 38:

Regarding Claim 38, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein notifying performed by said means for verifying and notifying is performed in an automatic fashion without feedback being provided to the user

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(column 5, lines 44-48, wherein builds a self checking mechanism and establishes a tie closure, wherein the survey team proceeds through the entire floor in the manner shooting all entities and their traverse points, wherein the self checking mechanism is automatic, Ingram).

Claims 46:

Regarding Claim 46, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein means for accepting at least one raster image file representing said physical environment (column 2, lines 21-26, Ingram); and

means for scaling said at least one raster image file for incorporation into one of said computer implemented means for editing (column 11, lines 13-17, Ingram) and said set of formatted data generated by said means for generating (column 3, lines 52-61, Ingram).

Claim 55:

Regarding Claims 55 and 64, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches the step of adding at least one of measured and predicted values to said one or more objects which are edited in at least one of said using a computer for editing step and represented in said formatted data (column 3, lines 47-51, wherein added to the prism is for example three inches, wherein the length may be adjusted as desired and that a corresponding adjustment may be made in the EDM, Ingram).



Claim 56:

Regarding Claims 56 and 65, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches means for scaling at least a portion of said set of formatted data generated by said means for generating (column 3, lines 52-61, Ingram).

Claim 57:

Regarding Claim 57, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches means for scaling at least a portion of said one or more objects that are edited by said computer implemented means for editing (column 6, lines 36-38, wherein setting of scale factors and rotation of the BLOCK which will require the use of more than one line to perform this command, Ingram).

Claim 58:

Regarding Claims 58 and 63, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein said computer implemented means for editing scales extraneous information from said accepted scanned image or drawing (column 12, lines 21-23, wherein the editor will allow the technician to select command identifier points, i.e. records to be extracted, Ingram).

Claims 60:

Regarding Claim 60, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches means for tracing said scanned image or drawing, and means for adding one or more traced objects to said one or more objects defining said modeled environment (see claim 64, wherein this limitation is substantially the same as claim 64, wherein adding one or more, Ingram).

Claims 61:

Regarding Claim 61, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches means for generating generates at least portion of said formatted data prior to said means for verifying verifies the sufficiency of said one or more objects (column 12, lines 11-17, Ingram).

Claim 63:

Regarding Claim 63, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches wherein said step of using a computer file for editing removes extraneous information and scales said scanned image or drawing (column 12, lines 21-23, wherein the editor will allow the technician to select command identifier points, i.e. records to be extracted, Ingram).

Claim 64:

Regarding Claim 64, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches the means for of adding at least one of measured and predicted values to said one or more objects which are edited by said computer implemented means for editing (column 3, lines 47-51, wherein added to the prism is for example three inches, wherein the length may be adjusted as desired and that a corresponding adjustment may be made in the EDM, Ingram).

Claim 65:

Regarding Claims 56 and 65, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches means for scaling all at least a portion of said set of formatted data generated by said means for generating (column 3, lines 52-61, Ingram).

Claim 66

Regarding Claims 57 and 66, the combination of Krause in view of Kozah and further in view of Awe and Ingram teaches means for scaling at least a portion of said one or more objects that are edited by said computer implemented means for editing (column 6, lines 36-38, wherein setting of scale factors and rotation of the BLOCK which will require the use of more than one line to perform this command, Ingram).

Examiner Response to Applicant Arguments

Applicant's arguments filed on 2/23/2007, with respect to the rejected claims in view of the cited references have been considered but are moot in view of applicant's amended claims necessitate new ground(s) of rejection.

**Prior Art of Record**

- |    |               |                           |
|----|---------------|---------------------------|
| 1. | Ingram et al. | (US Patent No. 5,091,869) |
| 2. | Arpee et al.  | (US Patent No. 5,926,762) |
| 3. | Awe et al.    | (US Patent No. 6,509,906) |
| 4. | Kozah et al.  | (US Patent No. 5,337,149) |
| 5. | Krause et al  | (US Patent No. 5,625,827) |

### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

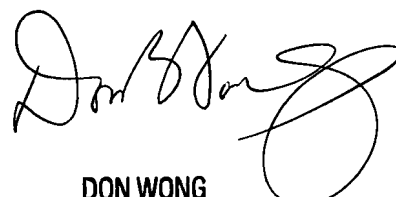
**Point of Contact**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Rose whose telephone number is (571) 272-0749. The examiner can normally be reached on 8:00am - 4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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